Watershed Restoration Pre- and Post-fire in the Chiricahua Mountains
Building Relationships One Rock at a Time...

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Sky Island Alliance
SIA received a grant to work in burned and unburned watersheds. Test efficacy of rock structures post-fire as well as pre-fire. Is it possible that these structures can increase resilience BEFORE intense wildfire, thereby buffering climate change impacts?
How does this work?

- Increasing the “roughness” of a channel slows water down
  - Slow water drops sediment
  - Channels aggrade
  - Increased infiltration (area and duration)

- Areas of higher soil moisture
  - may not burn as intensely
  - Native vegetation responds to increased soil moisture
    - good for wildlife and diversity
    - Potential areas of refuge during increased drought

- Pre-fire erosion treatment
Sky Island Restoration Cooperative (SIRC)

Project Partners

• Coronado National Forest
• US Geological Survey
• Borderlands Restoration
• Sky Island Alliance
• Cuenca los Ojos
Kick-off Meeting January 2015
Borderlands Earth Care Youth Institute (BECY) Douglas funded by Douglas Ranger District
7 Student Interns from Douglas High School
Student Interns Worked During the Month of June 2015
Almost 50 structures installed at Barboot by BECY-Douglas!
Department of Corrections
Crew- Tex Canyon and Barboot
Funded by Douglas Ranger District

- 30 days of work
- Supervised by USFS/BR, some support from SIA
As-Built Stats:
Over 700 structures installed * over 1km of actual rock applied

[Map of Bar Boot Canyon and Tex Canyon with markers for various structures]
BEFORE (May)

DURING (June)

AFTER (Aug)
Vegetation Monitoring: Long-term and Short-term Plots
Soil Moisture Monitoring
This monitoring made possible due to cost-savings on labor through creative collaboration
Botany Blitz 2015

• Floral inventories at 5 sites (Tex, Barboot, Hermitage, Camp Rucker, Rucker Spring)
• Team of expert botanists
Bringing this Work to Landscape Scale

Coronado National Forest is working toward NEPA analysis for this type of work for the entire Chiricahua Range – Potentially cross-jurisdictional with BLM, NPS, and private landowners.